DFD-7887-59

17 November 1959

MEMORANDUM FOR THE RECORD

SUBJECT: Development of Deception-Type Radar Jammer

1. A contract has been in effect with Applied Technology, Inc. since June 1959 for development and fabrication of two (2) deception-type repeater jammers to provide self-protection against conical scan "I" band AI radars. This jammer is similar to the Granger jammer but with 50 times the power output, i.e., 50 watts as opposed to one (1) watt. This jammer was developed for use in the PZV-7 aircraft but could be used in other types of aircraft as well. The equipment is of nominal size, weighing 45 pounds and being contained in one (1) full ATR size rack. The two (2) antennas associated with the system may be remotely located from the equipment, the electrical connection being made by standard "X" band waveguide.

2. The jammer was installed in the "test-bed" PZV-7 at Lockheed during the week of 2 November 1959. Initial flight tests were then conducted during the week of 9 November 1959. The tests were conducted at Point Mugu with a Navy P3M being employed as the chase aircraft. This aircraft was employed for several reasons: (1) it has a powerful, well-proven AI radar; (2) it is well instrumented; (3) the pilot flying the aircraft is one of the most experienced and skillful in the use of the radar to be found.

3. The results of the above tests were highly successful. Summed up briefly, the jammer succeeded in breaking the AI lock-on at the longer ranges (approximately ten (10) miles). At shorter ranges (1-3 miles) there were large errors introduced into the radar's tracking circuits, making it impossible to fire guns or rockets and probably impossible to fire any type of missile. From these initial results it appears that the jammer will be capable of providing protection against tail chase types of attack. Further tests at Eglin will be conducted to verify these results and also to determine the angular coverage over which protection is provided.

/s/

25X1

25 YEAR RE-REVIEW